CLAIMS:

1. An integrated circuit (100) comprising a data processing system (102), the data processing system (102) comprising a plurality of processing units (104, 106, 108) and a resource (110) shared by at least two of the processing units (104, 106, 108), characterized by at least one measurement unit (300, 302, 304), the measurement unit (300, 302, 304) being arranged to measure properties of the communication load imposed on the resource (110) by the processing units (104, 106, 108) over a time interval, the measurement unit (300, 302, 304) also being arranged to perform statistical operations on the properties of the communication load, wherein the statistical operations provide measurement results.

2. An integrated circuit (100) as claimed in claim 1, wherein the measurement unit (300, 302, 304) measures the properties of the communication load by observing the communication traffic on a first connection, the first connection being established between a processing unit (104, 106, 108) and the resource (110).

3. An integrated circuit (100) as claimed in claim 1, wherein the measurement unit (300, 302, 304) measures the properties of the communication load by observing the communication traffic on a second connection, the second connection being established between parts of the resource (110).

4. An integrated circuit (100) as claimed in claim 1, wherein the measurement unit (300, 302, 304) comprises a measurement controller (400) and a plurality of measurement data buffers (404a, 404b, 404c, 404d, 404e), the measurement controller (400) being arranged to perform the statistical operations and to store the measurement results in the measurement data buffers (404a, 404b, 404c, 404d, 404e).

5. An integrated circuit (100) as claimed in claim 4, wherein the measurement controller (400) is further arranged to partition the properties of the communication load into distinct classes and to perform the statistical operations on at least one of the distinct classes separately.

6. An integrated circuit (100) as claimed in claim 4, the time interval being divided into a plurality of units, wherein the measurement controller (400) is further arranged to perform statistical operations on the properties of the communication load over each unit and to provide the measurement results as a trace over time.

7. An integrated circuit (100) as claimed in claim 4, wherein the measurement controller (400) is further arranged to communicate with a control processor (402), the control processor (402) being equipped with a program, the program being conceived to configure the measurement unit (300, 302, 304).

8. An integrated circuit (100) as claimed in claim 7, wherein the program is further conceived to enable the control processor (402) to retrieve the measurement results from the measurement unit (300, 302, 304).

9. An integrated circuit (100) as claimed in claim 7, wherein the program is further conceived to enable the control processor (402) to control the operation of the resource (110) or to control the operation of the processing units (104, 106, 108).

10. An integrated circuit (100) as claimed in claim 2 or 3, wherein the measurement unit (300, 302, 304) is arranged to measure the amount of data transferred over the first connection or over the second connection, the amount of data transferred being one of the properties of the communication load.

11. An integrated circuit (100) as claimed in claim 2 or 3, wherein the measurement unit (300, 302, 304) is arranged to measure the latency of a request for data transfer to the resource (110) over the first connection or over the second connection, the latency of a request for data transfer being one of the properties of the communication load.

12. An integrated circuit (100) as claimed in claim 2 or 3, wherein the measurement unit (300, 302, 304) is arranged to measure the data transfer time to the resource (110) over the first connection or over the second connection, the data transfer time being one of the properties of the communication load.

13. An integrated circuit (100) as claimed in claim 1, wherein the statistical operations comprise average operations, minimum operations or maximum operations.

14. An integrated circuit (100) as claimed in claim 1, wherein the statistical operations comprise operations creating a set of values constituting a histogram with occurrence rates.

15. A video processing unit comprising an integrated circuit (100) as claimed in any of the preceding claims.